



# REACH

Economic facts and figures



Reaching the right conclusions.



## **Imprint:**

**Editor responsible:**  
Aleksandra Kordecka

**Layout:**  
prinzdesign, Berlin

**Images:**  
www.photocase.com, Greenpeace, European Parliament

**Copyright:**  
FoEE, September 2006

**Printed on 100% recycled paper by**  
beëlzePub

© Friends of the Earth Europe



## **Reaching the right conclusions:**

### **Economic facts and figures on the REACH proposal (Registration, Evaluation and Authorisation of Chemicals)**

Much discussion has surrounded the economic implications of the new chemicals law, REACH (Registration, Evaluation and Authorisation of Chemicals). This paper attempts to demonstrate that it is in the interest of the European chemicals industry and policy-makers alike to secure a law which increases competitiveness, encourages innovation and, at the same time, provides better protection for human health and the environment. It also dispels some of the myths purveyed by groups intent on undermining REACH.

## I. The cost of REACH

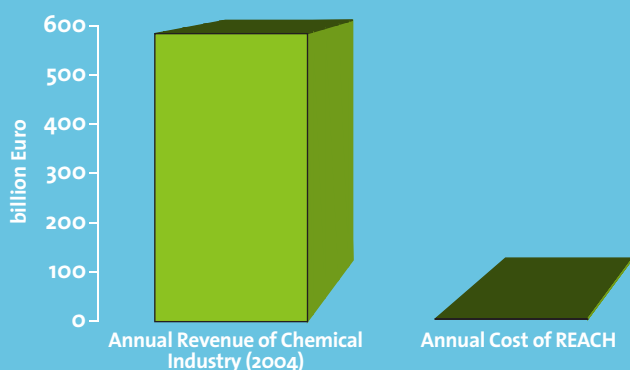
The European Commission's original proposal estimates registration costs for the chemical industry to be **€2.3 billion** over 11 years, equal to just 0.05% of the sector's annual sales (€586 billion in 2004 (Cefic 2006) [1].

The total cost of the REACH proposal, including costs to downstream users, is somewhere between **€2.8 billion and €5.2 billion** (European Commission, Extended Impact Assessment 2003) [2].

These projected costs are now likely to be significantly lower, as a result of the reduction in registration requirements agreed last year by Parliament and Council.

The ultimate cost will be determined by whether and to what extent registration costs raise chemical prices, and the cost of replacing substances withdrawn from the market (1-2% of chemicals currently in use may eventually be withdrawn) [ibid].

Comparison revenue of chemical industry and cost of REACH



No critical chemicals are likely to be withdrawn, according to a KPMG assessment for UNICE (The Confederation of European Business) and CEFIC (European Chemical Industry Council) [3].

The consultancy's study, based on the most conservative assumptions, could identify only one SME, a Chinese importer's European sales office, which would face problems under REACH's registration requirements [4]. Other suppliers, the report concludes, would "succeed in passing on" registration costs to customers without specific mention of particular difficulty [3].

According to the British Government, the total cost of REACH could be reduced by up to 24% by full use of the "one substance one registration" (OSOR) proposal [5].

## II. The benefits of REACH: Some examples

- The European Commission estimates (under its most conservative assumptions) that if REACH reduced chemical-related diseases by 10%, the cumulative benefits to society would be **€50 billion** over 30 years. This would include 2,200-4,300 fewer cancer cases resulting from workplace exposure to chemicals (European Commission, Extended Impact Assessment, 2003) [6].
- A recent Commission study indicates that REACH could bring extra benefits worth up to **€95 billion** over 25 years (above and beyond the aforementioned €50 billion). This would include savings of €52 billion from avoiding severe harm to health. The improved use of sewage sludge would bring savings of €8.9 billion from clean-up costs (e.g. savings on drinking water purification or building sewage works) and €34 billion from clean drinking water (in terms of willingness to pay) (European Commission, "The Impact of REACH on the environment and human health 2006") [7].



Overview of costs and benefits of REACH (total estimates)

NB: it is not possible to estimate the cost of REACH over 30 years. This makes accurate comparison extremely difficult

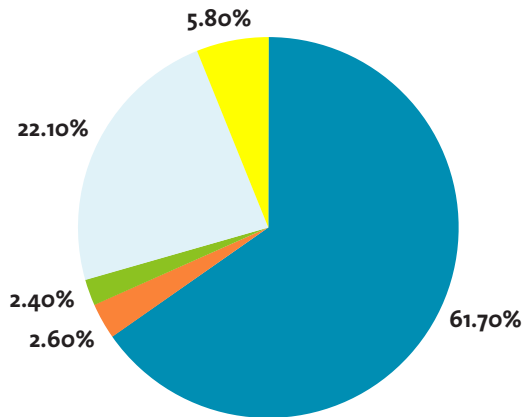
- The European Trade Union Confederation's (ETUC) study predicts that REACH will bring benefits of **€3.5 billion** over ten years and **€90 billion** over thirty years (when the full effects of REACH are in place) through improved employee health. This would result from 40,000 fewer cases of occupational skin diseases and 50,000 fewer cases of occupational respiratory diseases (excluding cancers) [8]. If REACH were stronger than the original proposal, it could deliver even greater benefits.

**FACT BOX: workers and hazardous chemicals**

- \* 16% of EU employees say that they handle hazardous products (European Agency for Safety and Health at Work [9]).
- \* 22% of EU employees say they are exposed to toxic fumes and vapour for at least a quarter of their working time [ibid].
- \* 18–30% of all occupational diseases recognised each year in the EU are related to exposure to chemicals (European Trade Unions Confederation [10]).
- \* There are approximately 6,500 occupational cancer deaths per year in the ‘EU-15’, according to the RPA (2003) [11].

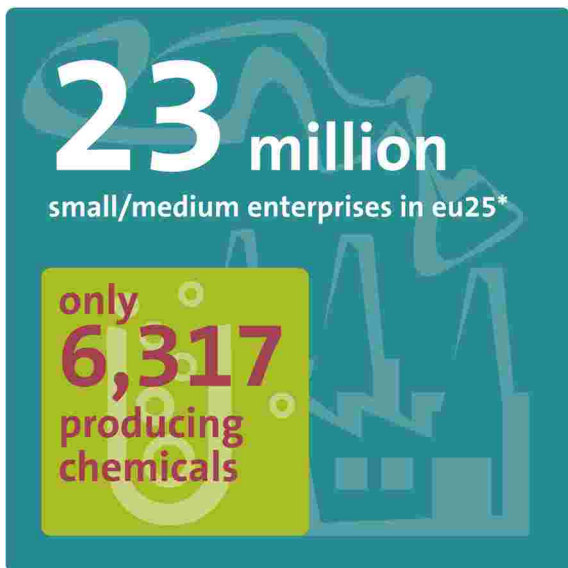
**III. REACH and Chemical Industry**

- The European chemical industry accounts for 2.4% of European GDP (EU-15) (Cefic 2005) [12].



- Services & Administration
- Construction
- Rest of Industry & Manufacturing
- Chemical Industry
- Agriculture

- **Small and Medium Enterprises (SMEs):** Of 23 million SMEs in EU countries (Eurostat 2005) [13], just 6,317 produce chemicals (Cefic 2005) [14]. Most SMEs are ‘Downstream Users’ of chemicals, and so will not have to provide data to the European Chemicals Agency. Moreover, they will benefit from access to information about the chemicals they use.



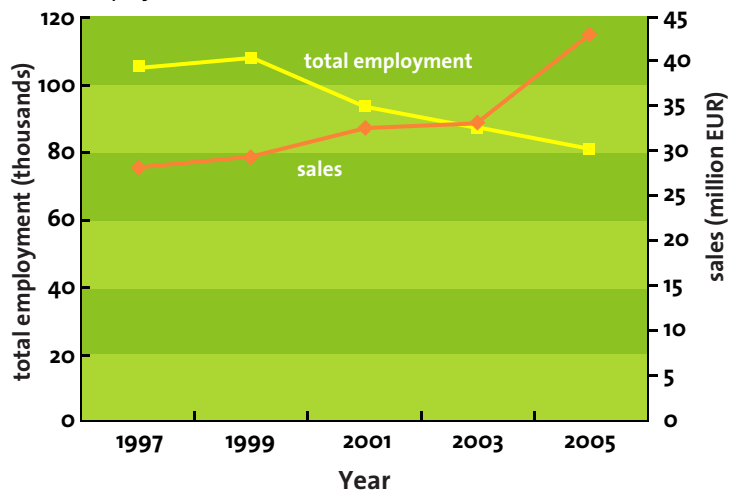
\* (Eurostat 2005)[13]

- The REACH proposal makes fewer demands on industry than a number of previous voluntarily-administered schemes, such as that operated by the German chemicals industry since 1997. Under this scheme, the industry committed itself to basic tests for all substances: providing data on toxicity to humans, how substances degrade in the environment, and how toxic they are to fish and other aquatic life. Under REACH, these tests, although applying to the bulk of high-volume chemicals, would only be required for a few low-volume chemicals, leaving two-thirds of potentially harmful chemicals covered by REACH untested and thus beyond the scope of controls.

**REACH and jobs:**

Employment in the European chemicals sector has fallen steadily over the past 15 years. BASF, the world’s largest chemicals producer, has been scaling back its workforce even while sales have increased [15]. Bayer has experienced a similar trend [16]. According to the BASF Financial Report (2005), the decline in the number of employees was primarily associated with “measures to increase efficiency” at the Ludwigshafen site and in North America [17]. REACH has obviously not been a factor in this decline.

Employment vs revenue BASF (1997-2005)



- According to a recent European Commission study, environmental policies can contribute to job creation and social inclusion. In particular, the report emphasises that there is no evidence of jobs moving out of the EU due to environmental policy between 2000 and 2005. It also concludes that there is a positive link between environmental policies and the quality of jobs. The shift towards integrated environmental technologies is often accompanied by investment in skills for employees. Investing in a better environment also reduces health risks to workers, for example through safer handling of dangerous chemicals [18].

- **Downstream Users:**

Currently, downstream users and retailers suffer damage to their brand image when ‘substances of very high concern’ are found in their products. By improving the information flow, REACH will help them receive safety information from producers and importers. Registration requirements in REACH will oblige producers and importers to provide safety information to downstream users and retailers, which will help ensure that the risks from known uses are manageable. Many Downstream Users, ranging from electronics companies (Dell), through cosmetics manufacturers (Boots) to furniture brands (IKEA) and the construction sector (Skanska, NCC AB) are already asking their suppliers for safer chemicals.

A strong REACH law will help them to identify suitable alternatives to hazardous chemicals and achieve more transparency throughout their supply chain in order to ‘limit’ the exposure of their employees and the public to hazardous chemicals and avoid liability claims.

“We consider the elimination of “substances of very high concern” and full information about the contents of the chemical products and material we use a very important factor of success for our business.”

(Alf Göransson CEO, NCC AB) (for more statements from companies see “What we need from REACH” [19])

## IV. REACH and Innovation

- REACH will decrease the distinction between ‘old’ and ‘new’ chemicals, creating a level playing-field for producers by removing barriers to innovation that exist under current laws. Existing rules for ‘new’ substances (chemicals which entered the market after 1981) apply to chemicals produced in volumes starting at ten kilogrammes per year. They require producers to provide information on threats to human health, including cancer-causing effects, harmful effects on the reproductive system and gene damage, as well as data on a substance’s degradability and the risk to aquatic organisms. REACH, in contrast, will only apply to substances produced or imported in quantities of one tonne or more per year, thus making it cheaper and easier for industry to market new low-volume substances. But it will also mean that no data will be available for chemicals produced or imported in quantities below one tonne per year.
- The history of European environmental law shows that “properly designed environmental standards can trigger innovations that lower the total cost of a product and improve its value” [20]. For example, the introduction of catalytic converters (EEC Directive on vehicle emission standards 91/441/EEC) did not only bring major health and environmental benefits, but also led to smaller, cheaper and more fuel-efficient cars [21]. Replacing harmful chemicals with safer alternatives makes economic sense. For example, the solvent perchloroethylene, used for dry cleaning, is bio-accumulative (builds up in the body) and damages the liver and central nervous system. Where replaced by carbon dioxide, the process becomes safer and more efficient, with lower costs per kilogramme and lower maintenance costs, albeit at a higher capital investment [22].



## V. REACH, Consumer Trust and Environmental Protection

If REACH is sufficiently strong, it will help consumers regain trust in products they buy, and improve public perceptions of the chemical industry. The chemical industry is all too aware of public distrust. In 2005, the American Chemistry Council spent US\$20 million on a public relations campaign [23]. A strong REACH law would be a cost-effective solution to the image problem [19].

“The lack of robust, integrated regulatory system for the management of chemicals may result in the current deep societal dissatisfaction with chemicals becoming a much more troubling consumer concern. [...] We believe that REACH is a great opportunity to re-build confidence in chemicals, for those who make them and those who use them” (statement by Boots and Marks & Spencer [19]).

**The coming months offer policy-makers their last chance to seize the opportunity presented by REACH, by laying the basis for a safe and healthy environment for Europe’s citizens. The following demands are the bottom-line conditions for achieving this goal:**

### 1. MAKE IT SAFE:

Replace hazardous chemicals with safer alternatives whenever they exist.

### 2. INFORMATION improves trust:

Provide sufficient safety data to identify dangerous chemicals and safer alternatives.

### 3. A LEGAL GUARANTEE:

Ensure that the chemical industry has the responsibility for the safety of their products (Duty of Care).

### 4. TRANSPARENCY

for consumer products: Establish a right to know for citizens.



## Notes

- [1] Cefic 2006. Facts and Figures 2006, <http://www.cefic.org/factsandfigures/>
- [2] European Commission "Extended Impact Assessment" October 2003, [http://europa.eu.int/comm/enterprise/reach/docs/reach/eia-sec-2003\\_1171.pdf](http://europa.eu.int/comm/enterprise/reach/docs/reach/eia-sec-2003_1171.pdf)
- [3] KPMG Business Advisory Services "REACH - further work on impact assessment. A case study approach" April 2005, [http://www.cefic.org/files/Publications/KPMG\\_study.pdf](http://www.cefic.org/files/Publications/KPMG_study.pdf)
- [4] "REACH impact assessments", <http://www.eeb.org/activities/chemicals/200506-EEB-WWF-REACH-IA.pdf#search=%22%20E2%80%9CREACH%20impact%20assessments%20%22>
- [5] UK Department for the Environment, Food and the Rural Affairs "REACH: One Substance One Registration" December 2004 <http://www.defra.gov.uk/environment/chemicals/reach/pdf/reach-substance.pdf#search=%22UK%20Department%20for%20the%20Environment%2C%20Food%20and%20the%20Rural%20Affairs%20E2%80%9CREACH%3A%20One%20Substance%20One%20Registration%20%22>
- [6] European Commission "Extended Impact Assessment" October 2003 [http://europa.eu.int/comm/enterprise/reach/docs/reach/eia-sec-2003\\_1171.pdf](http://europa.eu.int/comm/enterprise/reach/docs/reach/eia-sec-2003_1171.pdf)
- [7] European Commission "The impact of REACH on the environment and human health" February 2006 [http://europa.eu.int/comm/environment/chemicals/pdf/impact\\_on\\_environment\\_report.pdf](http://europa.eu.int/comm/environment/chemicals/pdf/impact_on_environment_report.pdf)
- [8] ETUC "The impact of REACH on occupational health with a focus on skin and respiratory diseases" October 2005 <http://hesa.etui-rehs.org/uk/newsevents/files/reach-sheffield-complet.pdf>
- [9] European Agency for Safety and Health at Work "The Practical prevention of risks from dangerous substances at work" November 2003 <http://osha.europa.eu/publications/reports/106/en/index.htm>
- [10] Simon Pickvance, Jon Karnon, Jean Peters, Karen El-Arifi, School of Health and Related Research, University of Sheffield, UK "Further assessment of the impact of REACH on occupational health with a focus on skin and respiratory diseases", prepared for the European Trade Union Institute for Research, Education and Health & Safety, September 2005 [http://hesa.etui-rehs.org/uk/dossiers/files/Sheffield\\_FINAL.pdf](http://hesa.etui-rehs.org/uk/dossiers/files/Sheffield_FINAL.pdf)
- [11] RPA "Assessment of the Impact of the New Chemicals Policy on Occupational Health". March 2003 <http://www.rpaltd.co.uk/tools/downloads/reports/reachoccuphealth.pdf#search=%22RPA%20Inc.%20Assessment%20of%20the%20impact%20of%20the%20new%20chemicals%20policy%20on%20occupational%20health%20%5Bonline%5D.%22>
- [12] CEFIC "Facts and Figures: The European chemical industry in a worldwide perspective" July 2005 [http://www.cefic.org/factsandfigures/level02/profile\\_index.html](http://www.cefic.org/factsandfigures/level02/profile_index.html)
- [13] Eurostat, Commission Communication on Modern SME policy for Growth and Employment 2005 [http://ec.europa.eu/enterprise/smes/facts\\_figures\\_en.htm](http://ec.europa.eu/enterprise/smes/facts_figures_en.htm)
- [14] Cefic, 2005 "SMEs in the EU Chemicals Industry" <http://www.cefic.be/files/Publications/SMEs-in-CI.pdf>
- [15] BASF Annual Report 2005. 10 year summary [http://berichte.basf.de/en/2005/finanzbericht/09\\_zehnjahresuebersicht/?id=570C\\_8dPkbir-dt](http://berichte.basf.de/en/2005/finanzbericht/09_zehnjahresuebersicht/?id=570C_8dPkbir-dt)
- [16] Bayer Annual report 2005 [http://www.bayer.com/annualreport\\_2005\\_id0602/include/download/en\\_ar\\_complete.pdf](http://www.bayer.com/annualreport_2005_id0602/include/download/en_ar_complete.pdf)
- [17] BASF AG (2005). Financial Report 2005 – Shaping the Future <http://www.berichte.basf.de/en/2005/finanzbericht/?id=Voo-Oh2tOgGlebirGN>
- [18] COMMISSION STAFF WORKING DOCUMENT on the links between employment policies and environment policies [http://www.europa.eu.int/comm/environment/integration/pdf/sec\\_2005\\_1530\\_en.pdf](http://www.europa.eu.int/comm/environment/integration/pdf/sec_2005_1530_en.pdf)
- [19] "What we need from REACH – views on the proposal for a new chemical legislation within the EU". The International Chemical Secretariat, January 2005. <http://www.chemsec.org/documents/What%20we%20need%20from%20REACH.pdf>
- [20] Porter, M and C. van der Linde (1995) "Green and Competitive: Ending the Stalemate" <http://pubs.acs.org/cen/news/8218/8218acc.html> Harvard Business Review
- [21] Cry Wolf, International Chemical Secretariat, April 2004, p. 6 <http://www.chemsec.org/documents/Cry%20wolf%20final%20220404.pdf>
- [22] Almstrom, Sten Hakan, Electrolux and den Otter, Walther, Institute of Textile Research, NL, February 2005 (quoted in "Safer Chemicals within REACH", Greenpeace European Unit) <http://www.greenpeace.eu/downloads/chem/SubstitutionReportFebo5.pdf>
- [23] Chemical and Engineering News, 04 May 2004

## For more information, please contact:

Mecki Naschke, European Environmental Bureau, tel +32 2 289 10 94, [mecki.naschke@eeb.org](mailto:mecki.naschke@eeb.org)  
 Aleksandra Kordecka, Friends of the Earth Europe, tel +32 2 542 61 08, [aleksandra.kordecka@foeeurope.org](mailto:aleksandra.kordecka@foeeurope.org)  
 Nadia Haiama, Greenpeace, tel +32 2 274 1913, [nadia.haiama@diala.greenpeace.org](mailto:nadia.haiama@diala.greenpeace.org)  
 Lisette Van Vliet, Health and Environment Alliance, tel + 32 2 234 3645, [lisette@env-health.org](mailto:lisette@env-health.org)  
 Daniela Rosche, Women in Europe for a Common Future, tel +31 6 2295 0027, [daniela.rosche@wecf.org](mailto:daniela.rosche@wecf.org)



The European Environmental Bureau is a federation of more than 140 environmental citizens' organisations based in all EU Member States and most accession countries, as well as in a few neighbouring countries. These organisations range from local and national, to European and international. The aim of the EEB is to protect and improve the environment of Europe and to enable the citizens of Europe to play their part in achieving that goal.

[www.eeb.org/activities/chemicals/Index.htm](http://www.eeb.org/activities/chemicals/Index.htm)

## GREENPEACE

Greenpeace is a global non-profit organisation, with a presence in 40 countries across Europe, the Americas, Asia and the Pacific.

Campaigning on the most crucial environmental issues since 1971, Greenpeace exists because this fragile earth deserves solutions, change and action. To maintain its independence, Greenpeace does not accept donations from governments or corporations. As a global organisation, Greenpeace focuses on the most crucial worldwide threats to our planet's biodiversity and environment.

[www.greenpeace.org/international/campaigns/toxics](http://www.greenpeace.org/international/campaigns/toxics)



**WECF**

Women in Europe for a Common Future (WECF) is a network of organisations in 30 countries. WECF helps women to actively take part in making their communities healthier and more sustainable. We propose solutions and ask politicians to take action. WECF believes in our right to a healthy environment!

[www.wecf.org/](http://www.wecf.org/)



**Friends of  
the Earth  
Europe**

Friends of the Earth Europe campaigns for sustainable and fair societies and for the protection of the environment, unites more than 30 national organisations with thousands of local groups and is part of the world's largest grassroots environmental network, Friends of the Earth International.

[www.foeeurope.org/safer\\_chemicals/Index.htm](http://www.foeeurope.org/safer_chemicals/Index.htm)

## CHEMICAL REACTION

Chemical Reaction is a joint project by the European Environmental Bureau, Friends of the Earth Europe and Greenpeace on the EU chemicals policy reform. This publication has been made possible with the support of the Sigrid Rausing Trust.

[www.chemicalreaction.org/](http://www.chemicalreaction.org/)



Health & Environment Alliance is an international non-governmental organisation advocating greater protection of the environment as a means to improving the health and well being of European citizens. One of its key objectives is to bring health expertise to the environmental policy-making process.

[www.env-health.org/](http://www.env-health.org/)